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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/574,791	05/19/2000	Stephen G. Dick	I-2-136.1US	9656

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EXAMINER	
NGUYEN, TOAN D	

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/574,791	DICK ET AL.	
	Examiner	Art Unit	
	Toan D Nguyen	2665	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 July 2004* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7-13 and 20-28* is/are allowed.

6)☒ Claim(s) *1,3-6,14 and 16-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *01 April 2004* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 5-6, 14, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamal et al (US 6,724,813) in view of Koorapaty et al (US 6,631,124) further in view of Moulsley (US 6,738,638).

For claim 1, Jamal et al disclose implicit resource allocation in a communication system, the method comprising:

transmitting from the user equipment an access data packet using a selected signature out of a set of signatures and in a time slot of a radio frame (figure 5, reference AS(2)) (col. 8 lines 44-52);

identifying at a base station the selected signature, the transmission time slot and the

transmission radio frame of the access data packet (col. 8 lines 61-66);

determining at the base station an uplink scrambling code for the user equipment based on the identified signature, transmission time slot and transmission radio frame (figure 4, reference 92, col. 7 line 67 to col. 8 line 4 and col. 8 lines 61-63).

Jamal et al disclose the determined uplink scrambling code (col. 9 lines 1-4). However, Jamal et al do not disclose selectively transmitting from the base station an acknowledgment message based on in part an availability of the determined uplink scrambling code; and receiving the acknowledgment message at the user equipment and transmitting a subsequent data packet. In an analogous art, Koorapaty et al disclose:

selectively transmitting from the base station an acknowledgment message based on in part an availability of the determined uplink scrambling code (figure 10, reference step 1040, col. 9 line 64 to col. 10 line 2); and

receiving the acknowledgment message at the user equipment and transmitting a subsequent data packet using the determined uplink scrambling code (figure 10, col. 9 lines 59-64).

One skilled in the art would have recognized selectively transmitting from the base station an acknowledgment message based on in part an availability of the determined uplink scrambling code to use the teachings of Koorapaty et al in the system of Jamal et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the receiving the acknowledgment message at the user equipment and transmitting a subsequent data packet as taught by Koorapaty et al in Jamal et al.'s system with the motivation being to provide a positive confirmation.

Moreover, Jamal et al in view of Koorapaty et al do not disclose if the determined uplink scrambling code is unavailable, transmitting a negative acknowledgment to the user equipment. In an analogous art, Moulsley discloses if the determined uplink scrambling code is unavailable (figure 4, reference step 406, col. 5 lines 49-53), transmitting a negative acknowledgment to the user equipment (figure 1, reference 110) (col. 6 lines 4-6). One skilled in the art would have recognized if the determined uplink scrambling code is unavailable, transmitting a negative acknowledgment to the user equipment to use the teachings of Moulsley in the system of Jamal et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the if the determined uplink scrambling code is unavailable, transmitting a negative acknowledgment to the user equipment as taught by Moulsley in Jamal et al's system with the motivation being to indicate that a signal was received but that it cannot be processed for some reason (col. 6 lines 6-7).

For claim 5, Jamal et al disclose wherein the determined scrambling code is based on a function of the identified signature, transmission time slot and transmission radio frame (col. 9 lines 1-4).

For claim 6, Jamal et al disclose wherein the random access channel is a common packet channel (col. 8 lines 25-27).

For claim 14, Jamal et al disclose implicit resource allocation in a communication system, the method comprising:

a user equipment (figure 1, reference 30) having:

means for transmitting an access data packet using a selected signature out of a set of signatures and in a time slot of a radio frame (figure 5, reference AS(2)) (col. 8 lines 44-52); and

a base station (figure 1, reference 23) having:

means for identifying the selected signature, the transmission time slot and the transmission radio frame of the access data packet (col. 8 lines 61-66);

means for determining the uplink scrambling code for the user equipment (reference 30) based on the identified signature, transmission time slot and transmission radio frame (figure 4, reference 92, col. 7 line 67 to col. 8 line 4);

means for selectively transmitting an acknowledgment message based on in part the identified signature, transmission time slot and transmission radio frame (col. 9 lines 60-65); and

means for selectively transmitting an acknowledgment message based on in part an availability of the determined uplink scrambling code (col. 9 lines 60-65).

Jamal et al disclose the determined uplink scrambling code (col. 9 lines 1-4). However, Jamal et al do not disclose selectively transmitting from the base station an acknowledgment message based on in part an availability of the determined uplink scrambling code; and receiving the acknowledgment message at the user equipment and transmitting a subsequent data packet. In an analogous art, Koorapaty et al disclose:

selectively transmitting from the base station an acknowledgment message based on in part an availability of the determined uplink scrambling code (figure 10, reference step 1040, col. 9 line 64 to col. 10 line 2); and

receiving the acknowledgment message at the user equipment and transmitting a subsequent data packet using the determined uplink scrambling code (figure 10, col. 9 lines 59-64).

One skilled in the art would have recognized selectively transmitting from the base station an acknowledgment message based on in part an availability of the determined uplink scrambling code to use the teachings of Koorapaty et al in the system of Jamal et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the receiving the acknowledgment message at the user equipment and transmitting a subsequent data packet as taught by Koorapaty et al in Jamal et al.'s system with the motivation being to provide a positive confirmation.

Moreover, Jamal et al in view of Koorapaty et al do not disclose if the determined uplink scrambling code is unavailable, transmitting a negative acknowledgment to the user equipment. In an analogous art, Moulsley discloses if the determined uplink scrambling code is unavailable (figure 4, reference step 406, col. 5 lines 49-53), transmitting a negative acknowledgment to the user equipment (figure 1, reference 110) (col. 6 lines 4-6).

One skilled in the art would have recognized if the determined uplink scrambling code is unavailable, transmitting a negative acknowledgment to the user equipment to use the teachings of Moulsley in the system of Jamal et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the if the determined uplink scrambling code is unavailable, transmitting a negative acknowledgment to the user equipment as taught by Moulsley in Jamal et al's system with the motivation being to indicate that a signal was received but that it cannot be processed for some reason (col. 6 lines 6-7).

For claim 18, Jamal et al disclose wherein the determined scrambling code is based on a function of the identified signature, transmission time slot and transmission radio frame (col. 9 lines 1-4).

For claim19, Jamal et al disclose wherein the random access channel is a common packet channel (col. 8 lines 25-27).

4. Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamal et al (US 6,724,813 B1) in view of Koorapaty et al (US 6,631,124) and Moulsley (US 6,738,638) further in view of Popovic' (US 6,567,482 B1).

For claim 3 and 16, Jamal et al in view of Koorapaty et al and Moulsley do not disclose wherein the superframes have a set of 72 radio frames, each radio frame is divided into a set of eight time slots. In an analogous art, Popovic' discloses wherein the superframes have a set of 72 radio frames (col. 2 line 36), each radio frame is divided into a set of eight time slots (col. 3 lines 34-35). Popovic' discloses further wherein the superframes have a set of 72 radio frames (col. 2 line 36), each radio frame is divided into a set of eight time slots (col. 3 lines 34-35 as set forth in claim 16).

One skilled in the art would have recognized the superframes to use the teaching of Popovic' in the system of Jamal et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the superframes as taught by Popovic' in Jamal et al's system with the motivation being to provide for each radio channel which is divided into a series of time slots, each of which contains a block of information from a user (col. 2 lines 31-33).

5. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamal et al (US 6,724,813 B1) in view of Koorapaty et al (US 6,631,124) and Moulsley (US 6,738,638) and Popovic' (US 6,567,482 B1) further in view of Gustafsson et al (US 6,643,275 B1).

For claim 4 and 17, Jamal et al in view of Koorapaty et al, Moulsley and Popovic' do not disclose wherein the set of signatures numbers sixteen. In an analogous art, Gustafsson et al. disclose wherein the set of signatures numbers sixteen (figure 5, col. 7 line 31).

One skilled in the art would have recognized the set of signatures numbers sixteen to use the teachings of Gustafsson et al. in the system of Jamal et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to use the set of signatures numbers sixteen as taught by Gustafsson et al. in Jamal et al.'s system with the motivation being to provide a code-tree diagram that illustrates an example of the channelization code allocation for the data portion of a random access request to be transmitted by a MS (col. 7 lines 24-26).

Allowable Subject Matter

6. Claims 7-13 and 20-28 are allowed.

Regarding claim 7, the prior art fails to teach a combination of the steps of:

defining a set of N predetermined scrambling codes for the common packet channel where $N > L$, in the specific combination as recited in the claim.

Regarding claim 20, the prior art fails to teach a combination of the steps of:

means for defining a set of N predetermined scrambling codes for the channel where $N > L$, in the specific combination as recited in the claim.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3-14 and 16-28 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan D Nguyen whose telephone number is 703-305-0140. The examiner can normally be reached on Monday- Friday (7:00AM-4:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

TN
TN

HUY D. VU
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